

Crows made their lives miserable as long as their parents were away.

The Wood Ibises are not in need of protection; they are extremely shy and wary and well able to take care of themselves; they are not sought after by the plume hunters and are useless for food.

Plegadis autumnalis. GLOSSY IBIS.

I have very little to add to the life history of this species in Florida where it is undoubtedly rare and of local distribution. We saw a few Glossy Ibises flying over the marshes of the upper St. Johns, but found no evidence of their breeding there.

The White-faced Glossy Ibis has been once recorded from this vicinity near Lake Washington, where a female was shot on a nest containing three eggs (see Brewster, *Auk*, III, 1886, p. 481). We were unable to shoot any of the birds we saw and therefore could not determine the species with certainty. In Monroe County we saw only one flock of five birds flying over, high in the air, at Lowes Lake near Cape Sable. Our guides told us that they were rarely seen, and none of the guides with whom I corresponded seemed to know them at all.



SUMMER BIRDS OF THE LEECH LAKE REGION, MINNESOTA.

BY EDMONDE S. CURRIER.

IN 1902 I was in this region from May 26 to June 10, and again, in 1903, from May 22 to June 8. Almost the entire time was devoted to the birds, particular attention being given to the breeding species.

I made my headquarters in the little city of Walker during both visits. In 1902 I was by myself the greater part of the time, but

was accompanied frequently by my friend Mr. Thompson who, although not particularly interested in birds, helped me in many ways and was good company. In 1903 Mr. Phila W. Smith, Jr., of St. Louis was with me, and we lost little time. Mr. Smith is an experienced field man, and being also energetic and tireless we covered the immediate country around Walker thoroughly. Our time was too limited to allow us to explore the entire lake as we desired to do, so we confined ourselves to the western end.

The town of Walker is on Walker Bay, the latter forming the western extension of Leech Lake proper. Walker Bay, itself, is no inconsiderable body of water, as it is from ten to fifteen miles in length, by one to three in width. Leech Lake is one of the largest lakes in Minnesota and has over five hundred miles of shore line. It is in the north-central part of the State, just north of the 47th parallel, and between 94° and 95° west longitude—not far from the source of the Mississippi.

The lake is a beautiful body of water, clear, cold, and pure, with sandy shores and bottom, the former rippapped with great granite boulders. Many beautiful forest-clad headlands project out into the lake, forming protected bays of varying size. Several small rivers, such as the Shinobie, Kabakona, Steamboat, and Benedict, enter Walker Bay, carrying the surplus water from numerous small lakes and ponds back in the hills. At the mouths of these streams, and in places along their course, are marshes of greater or less extent, with beds of wild rice and cane.

The Leech Lake Indian Reservation, occupied by the Pilger tribe of the Chippewas, takes up the greater part of the lake and surrounding country, and on their lands the forest is in its natural beauty. Where the land is not thus protected the destructive lumberman has left nothing but unsightly pine stumps and mutilated standing trees; and as this section was only cut over from three to five years ago, nature has not had time to cover the scars. In many places great fires have swept through in the wake of the lumbermen leaving nothing but desolation. Some of the places are so recently burned over that nothing green has started from the crisp, ash covered ground, and such localities are shunned by birds and insects.

Back from the lake is a succession of hills, with small lakes or

'pot-holes' between. On many of the larger hills are depressions, some water-filled, forming lakes of several acres. Another peculiarity of the country is the great number of boulders of different sizes scattered haphazard over the landscape. The lake beds and shores are strewn with them, they protrude from the marshes and swamps, and are plentiful on the hilltops. In places they are piled up as if they had drifted there.

In its primitive state the forest is heavy, the principal trees being white, Norway and jack pines, balsam, cedar, tamarack, hemlock, poplar, birch, sugar and soft maple, oak, linn, elm and black ash. The hills become covered with birch and poplar after the pines are cut away.

The low growth consists of black alder, hazel, wild raspberry, currant and gooseberry. A wild rose is also numerous. The ground in the clearings and old burns is carpeted with winter-green, wild strawberry, and the abundant blueberry. The great 'brakes,' and more delicate species of ferns are in profusion everywhere.

The country is wild and new, and fences are few and far between, as little land is under cultivation. The soil is very sandy with much gravel, and looks unpromising.

1. *Colymbus holbœllii*. HOLBÆLL'S GREBE.—A colony of from six to ten pairs was found breeding in a bay formed by Minnesota Point in both 1902 and 1903. In 1902 I saw the following nests, with contents as stated: June 2, two nests, each containing one egg, and one nest containing six eggs; June 10, three nests, containing four, five, and seven eggs respectively. In 1903 we saw the following: May 31, two nests, each with one egg, one with three, and another with four eggs; May 24, two nests, each with one egg, and two containing three eggs each.

One nest was high and dry on a muskrat house—a hollow in the side of the house, and about ten inches above the water. The muskrat house was in a patch of tall canes, growing in deep, open water, forming a small island. The other nests were similar in situation, style of architecture, and material used. They varied only in size, and this depended upon the time the birds had been laying. Nests containing only one egg were simply irregular piles or rafts of floating flags, soft and rotting, with the egg often awash and covered with foam. In more advanced sets the nests formed quite a mass of material, with a deep cup above water line. No birds were seen on the nests, or leaving them, but in 1902 I saw one swimming away from a patch of canes in open water that contained a nest.

When there was but one egg in the nest this was left uncovered, but in larger sets the eggs were at least partially covered, and in some cases entirely so. The nests were all placed at the edge of deep and open water so that the bird could dive directly from them.

In 1903 the birds were very quiet both times we were there, and kept out of sight, or at a great distance. I think this was because they had been disturbed, as nests containing eggs May 24 were either deserted or contained fewer eggs when we visited them again on the 31st. The Indians have a village on Squaw Point, a few miles across the bay, and they were seen paddling around these rice beds, and it may be that they take the eggs. In 1902 I did not notice that any nests had been disturbed.

In 1902 they were very noisy both days I was in the vicinity, and although wary and keeping at a distance, were constantly in sight in the open waters between the rice beds and cane islands. They are much given to short flights, resembling a loon while on the wing. In taking wing they patter along the water like a coot. The cry is loon-like also, and very striking. It begins with a shrill wail, drawn out, and ending with more rapid notes, and can be heard a great distance over the water. When at a distance they sit high upon the water like a duck, but with the neck held stiffly at a right angle to the body, and the bill at a right angle to the neck. When nearer they swim with the back awash or only the head above the surface.

We did not see any other grebe around Leech Lake, and it was only in this one place that this species was found.

2. *Gavia imber*. LOON.—Common, and seen every day on or about Leech Lake, or flying overhead to or from the smaller lakes back in the forest. Cry frequently heard. No nests seen either year.

3. *Larus argentatus*. HERRING GULL.—Seen on Walker Bay on the following dates in 1903: May 21, 24, 29, and 31. Not over two seen at one time.

4. *Larus franklinii*. FRANKLIN'S GULL.—May 27, 1902, several were flying over Walker Bay, and on the same date in 1903 we saw one at the eastern end of the same water.

5. *Sterna forsteri*. FORSTER'S TERN.—A white tern seen on Walker Bay, May 30, 1903, was probably this species. It was not obtained.

6. *Hydrochelidon nigra surinamensis*. BLACK TERN.—A colony of perhaps 200 pairs was seen on the marsh extending along Minnesota Point from Kabakona Bay out into the lake. They seemed to be in about the same numbers in 1903 as in 1902. In the former year I found no nests although I saw them carrying material, but this year we found them breeding on the 6th of June. The nests almost invariably held three eggs, most of them fresh, but some had been incubated for several days. The nests were on little islands of moss, or occasionally on rafts of floating grass. Some of them were quite deeply cupped and dry, others were made of reeds and flags, on the beds of grass, and looked rather neat; but in some instances the eggs were half buried by their own weight in the

wet slime, with only three or four short pieces of cane or reeds for a nest. Not more than one nest was on the same bed, nor did we find two nests near together.

The majority of the birds were in full plumage, but a few were much mottled with light. The clamor made by their jerky cries, the harsh, scolding of the Yellow-heads, and more vigorous protests of the Red-wings, the cries of the Sora, and the 'jumping' of the Bitterns, together with frequent shouts from Holbøll's Grebe, made this marsh very interesting.

7. *Pelecanus erythrorhynchos*. AMERICAN WHITE PELICAN.—June 6, 1902, I saw a flock of eight over Squaw Point flying towards the main lake. None were seen by us in 1903.

8. *Anas boschas*. MALLARD.—Seen in several places about Walker Bay in both 1902 and 1903. June 6, 1903, I found a nest on Kabakona marsh recently left by a brood. It was a hollow filled with down and egg shells, between two ash stumps in rank grass, in a dry place on the marsh and only a few yards from the railroad.

9. *Querquedula discors*. BLUE-WINGED TEAL.—A pair heard and seen at Minnesota Point June 6, 1902. None seen in 1903.

10. *Aix sponsa*. WOOD DUCK.—June 6, 1902, at Minnesota Point, a pair flew around me in evident excitement. I suppose they had young near by.

11. *Branta canadensis*. CANADA GOOSE.—May 31, 1902, an old bird with young was seen near the mouth of Steamboat River.

12. *Botaurus lentiginosus*. AMERICAN BITTERN.—Common at every point visited. No nests were seen in 1903, but June 6, 1902, I saw a nest containing five eggs.

13. *Ardea herodias*. GREAT BLUE HERON.—Common about the lake. No nests seen.

14. *Porzana carolina*. SORA RAIL.—Abundant on all suitable marshes. Many nests seen in 1903, one containing eighteen eggs, another seventeen. The average number of a set seems to be about ten.

15. *Steganopus tricolor*. WILSON'S PHALAROPE.—Common on the rice beds at Minnesota Point in both 1902 and 1903. No nests seen.

16. *Macrorhamphus scolopaceus*. LONG-BILLED DOWITCHER.—One was taken May 24, 1903, at Minnesota Point. It was standing on the edge of a rice bed, near deep water, and allowed us to row within a few yards, merely crouching down and showing little fear. As we were not sure as to the bird's identity Mr. Smith shot it from the boat. It was a beautiful bird in high plumage.

17. *Actodromas minutilla*. LEAST SANDPIPER.—June 6, 1902, a flock of ten or fifteen was feeding on the beach along Minnesota Point. At the same place, May 24, 1903, another flock of about the same size flew by us.

18. *Ereunetes pusillus*. SEMIPALMATED SANDPIPER.—May 27, 1902, one was seen along the beach near Walker. May 23, 1903, another was flushed from a bog near the railroad above Walker.

19. *Calidris arenaria*. SANDERLING.—JUNE 10, 1902, one was seen on the beach near the end of Minnesota Point. The wind was high at the time, and I was rowing as close to the shore as possible to avoid it, and the boat passed within a few feet of this bird. It seemed to be too busy searching for food to notice me. May 24, 1903, another was seen near the same place on the beach.

20. *Bartramia longicauda*. BARTRAMIAN SANDPIPER.—I saw but one; this was on June 9, 1902, on a small marsh near the mouth of Kabakona Bay.

21. *Actitis macularia*. SPOTTED SANDPIPER.—Abundant about the lake shore. Two nests, each containing four eggs, were seen in 1903.

22. *Oxyechus vociferus*. KILDER.—Common near the lake, particularly in the evening when they seemed to come from the interior to feed.

23. *Ægialitis semipalmata*. SEMIPALMATED PLOVER.—May 24, 1903, one was seen on the beach near the end of Minnesota Point.

24. *Arenaria morinella*. RUDDY TURNSTONE.—May 24, 1903, one was seen on the beach near the end of Minnesota Point. We passed in the boat within a few yards of where it was busily engaged in turning over pebbles and pieces of bark without flushing it. It stopped and looked at us several times but did not seem timid.

25. *Canachites canadensis canace*. CANADIAN SPRUCE GROUSE.—I think I flushed one of these birds from a poplar wood on a hillside near Walker, May 26, 1902, but we could find none in 1903, although we looked particularly. The people there say that the "Spruce Hen" is only with them in the winter, when it is common in the jack pine woods.

26. *Bonasa umbellus togata*.—CANADIAN RUFFED GROUSE.—Common and tame about Walker. Heard drumming, or seen almost every day. No nests seen. The people call them "Partridges," and they are the chief game bird of that region.

27. *Cathartes aura*. TURKEY VULTURE.—Several were seen both years about Walker. June 9, 1902, a pair passed low over me at Kabakona Bay, and May 27, 1903, three were in sight at one time over Shinobie River. They are generally seen singly, and cannot be called common.

28. *Circus hudsonius*. MARSH HAWK.—In 1902 I saw this bird on almost every suitable marsh around the lake, but in 1903, strange to say, we did not see a single one anywhere.

29. *Accipiter velox*. SHARP-SHINNED HAWK.—One seen May 27, 1902. In 1903 we saw several.

30. *Buteo borealis*. RED-TAILED HAWK.—Several seen in both years about the lake.

31. *Buteo lineatus*. RED-SHOULDERED HAWK.—June 8, 1902, one crossed the railroad so near me I could see it plainly. Several seen in 1903.

32. *Falco columbarius*. PIGEON HAWK.—May 27, 1903, a pair was seen sitting, not far apart, on the extreme tops of two spire-like balsams

on the Shinobie River. They acted very much at home and no doubt had a nest not far away.

33. *Falco sparverius*. AMERICAN SPARROW HAWK.—None seen about Leech Lake in 1902, but in 1903 we could generally find one about some old stubs two miles south of Walker, along the lake shore. Others were also seen in 1903.

34. *Syrnium varium*. BARRED OWL.—One was seen crossing an arm of Walker Bay, at twilight, June 7, 1903. Two downy young were also seen in captivity in Walker while we were there this year.

No other owl was seen or heard either year. I was told that Screech Owls were often heard, but we were not fortunate enough to hear any. The people say that the Snowy Owl visits them in the winter, some years in numbers.

35. *Coccyzus erythrophthalmus*. BLACK-BILLED CUCKOO.—Fairly common around Walker. First heard June 3, 1902, and May 25, 1903.

36. *Ceryle alcyon*. BELTED KINGFISHER.—Very abundant around the lake, and seen near every body of water visited. Many nesting cavities seen.

37. *Dryobates villosus leucomelas*. NORTHERN HAIRY WOODPECKER.—The Hairy Woodpecker of the Leech Lake region is very much larger than the one I am familiar with in Iowa and Missouri, and I do not hesitate to list it as *D. v. leucomelas*. Several nests full of noisy young were found in both years.

38. *Dryobates pubescens medianus*. DOWNY WOODPECKER.—Seen frequently about Walker but nowhere nearly so common as in the woodlands of Iowa. Several nests seen in the two years.

39. *Picoides arcticus*. AMERICAN THREE-TOED WOODPECKER.—Two fine males were seen along Shinobie River, May 27, 1903. We located what we supposed was the nest of one of them, but not having climbers along at the time and it being in an almost impassable pine stub, limbless, and charred by forest fires, we had to give it up. The cavity was fifty feet, at least, from the ground in the main trunk and was plainly new, and much worn about the entrance, where the birds in alighting had brushed off the black. Rapping on the trunk failed to bring out the female, but the nest was at such a height it would not be likely to.

The birds were very beautiful, with their black backs and yellow crowns. They were both very busy as long as we saw them, lighting on a tree trunk or snag they would work upwards, almost from the ground, frequently giving a rather shrill *cheep, cheep*.

40. *Sphyrapicus varius*. YELLOW-BELLIED WOODPECKER.—Quite common in 1902, but not so many were seen in 1903. A nest containing six fresh eggs was seen, May 31, 1902. This was about twelve feet from the ground in the main trunk of a live poplar. We saw another nest June 1, 1903, about 30 feet up, also in a poplar. The birds were about this nest, but it was empty.

41. *Ceophlœus pileatus abieticola*. NORTHERN PILEATED WOOD-

PECKER. — I saw or heard none in 1902, but this was simply bad luck, as in 1903 we heard three or four at different times around Walker, and May 22 Mr. Smith caught a glimpse of one as it left a snag on a hilltop. Their work on stumps and snags was frequently seen, and several times the quavering song was heard near at hand, but the trees were so close together it was no trouble for the bird to remain hidden. There were at least three pairs breeding within a few miles of Walker.

42. *Melanerpes erythrocephalus*. RED-HEADED WOODPECKER. — A rare bird about Leech Lake. Only one was seen in 1902, on May 27, near Walker. June 1, 1903, we saw one near the same place, and a few days later saw it again.

43. *Colaptes auratus luteus*. NORTHERN FLICKER. — Could be called fairly common. Several nests seen both years.

44. *Antrostomus vociferus*. WHIP-POOR-WILL. — I heard but one in 1902. This was on June 8, on the hillside back of Walker, and although I was in the same locality several evenings after that I did not hear it again. In 1903 I heard the first call in the evening of May 23. No more were heard until the 26th, when two or three could be heard calling. After that two or more were heard every evening.

45. *Chordeiles virginianus*. NIGHTHAWK. — Very common in the evenings over the lake. We saw four nests in 1903, on the cleared hills back of Walker.

46. *Chætura pelagica*. CHIMNEY SWIFT. — Quite common about Walker and frequently seen over the forests miles from the settlements. Many must nest in hollow trees, as they do in the southern swamps, because this region is very thinly settled. May 26, 1903, we found one building a nest on the wall inside of a vacant shanty on Kabakona Bay. Several were seen descending brick chimneys in the town of Walker, but there certainly are not enough chimneys to go around in that locality.

47. *Trochilus colubris*. RUBY-THROATED HUMMINGBIRD. — A common bird about Walker. In greatest numbers during the last week in May, showing that migrations were on then.

48. *Tyrannus tyrannus*. KINGBIRD. — Seldom out of sight along the lake shores, and railways, and near the cabins of the settlers. Several nests were seen both years.

49. *Myiarchus crinitus*. CRESTED FLYCATCHER. — Frequently seen and heard. In 1902, first heard on May 27; in 1903, one on May 22. No nests seen.

50. *Sayornis phœbe*. PHŒBE. — A common bird around the lake shores. I saw a nest containing five speckled eggs May 27, 1902.

51. *Nuttallornis borealis*. OLIVE-SIDED FLYCATCHER. — None seen by me in 1902, but, May 30, 1903, the loud call of one attracted us to it in a dry ravine back of Walker. We saw it, or others, in that vicinity for several days, and June 7, the females seemed to have arrived, as we saw two birds in pursuit of another. They were very active and noisy, and would not allow a near approach. The cry is one of the wildest of all

small bird calls, and is not to be confused with that of any other species, at least in the Mississippi Valley.

52. *Contopus virens*. WOOD PEWEE.—Heard every day we were in the woods about Walker.

53. *Empidonax traillii*. TRAILL'S FLYCATCHER.—Two seen and heard in the low thicket along the shores of the lake, June 5, 1902. I heard the low *pwheet* of another May 25, 1903, in the same place. The form here may be referable to the northeastern form, *E. t. alnorum*, but we did not procure any specimens.

54. *Empidonax minimus*. LEAST FLYCATCHER.—An abundant bird, particularly in 1902. In that year, from May 26 to June 1, they were the most abundant bird, the *chebick, chebick* being constantly heard during daylight. They were not so numerous after June 1, but still could be called abundant. In 1903 they did not appear in such numbers, but we heard and saw them every day.

55. *Otocoris alpestris praticola*. PRAIRIE HORNED LARK.—I saw but one of these birds in 1902, and in 1903 we saw none. The one seen was near the Great Northern depot at Walker, June 5, after a shower. It was soaring and in full song. The country in that section is not suitable for this bird, and to that fact no doubt is due its scarcity.

56. *Cyanocitta cristata*. BLUE JAY.—Frequently seen and heard, but not in such numbers as further south.

I was told that the 'Camp-robber' (*Perisoreus canadensis*) appears about Leech Lake in cold weather, but does not remain during the summer.

57. *Corvus americanus*. AMERICAN CROW.—Common everywhere about the lake. Several occupied nests were seen both years. One pair in particular had our sympathy. They had a nest full of young in a scrub oak standing alone out on the marsh, where several pairs of Kingbirds, and thousands of Redwings were breeding. Every time a Crow made a move it was pounced upon by from two to a dozen of the smaller birds and forced to light for a time. The Yellow-heads would also join in at times, but they were not so persistent. The Redwings seemed to be the worst.

58. *Dolichonyx oryzivorus*. BOBOLINK.—Only one seen near Leech Lake in the two years. This was on June 9, 1902, at Kabakona Bay, and was a male in song.

59. *Molothrus ater*. COWBIRD.—Very common in the clearings and along the railroads, but were in greatest numbers in the town of Walker and vicinity, where they were in flocks of from 25 to 50, familiarly lighting in the streets and roads. Eggs of this bird were seen in nests of *Melospiza cinerea melodia*, *Melospiza georgiana*, *Dendroica pensylvanica*, *Seiurus aurocapillus* and *Wilsonia canadensis*.

60. *Xanthocephalus xanthocephalus*. YELLOW-HEADED BLACKBIRD.—Seen on all the marshes about Leech Lake, and there was a large colony at Minnesota Point. The full plumaged male is a striking bird with his

abruptly contrasting colors, and the noise made by a colony of them, when intruded upon, is rather exciting. The cries are rather unpleasant, being harsh and grating, yet after one has been with them a little time they do not seem out of tune with the wind's whistling over the grass and through the canes. Many beautiful nests were seen, one in particular I would have liked to have taken, but it contained young at the time. This was in a patch of canes at the edge of open water and was unusually large. What made it so handsome was that the bird had woven into the nest from the top several long stalks of a species of fox-tail grass, leaving the heads on, and five or six of these stood erect, plume like, around the edge of the cup. The usual number of eggs in a nest was three or four, but we saw one containing five.

61. *Agelaius phœniceus*. RED-WINGED BLACKBIRD.—Abundant throughout that country. Every suitable place had its pair or colony. A great many nests were examined. They usually contained four eggs or young, often only three, and frequently five. In 1902 I saw one nest containing six eggs, and this year two nests with the same number.

62. *Icterus galbula*. BALTIMORE ORIOLE.—Common about the lake, but not as many were seen in 1903 as in 1902. All the nests seen were in birch trees.

63. *Quiscalus quiscula æneus*. BRONZED GRACKLE.—Abundant in the village of Walker and along the lake shores and in the marshes. During the two years many nests were seen and they seem to vary considerably in situation in that country. While the majority were open nests placed in forks or crotches of limbs or trees, several seen in 1902 were in cavities of trees and stubs. I found one nest in 1903 out on the open marsh, with a colony of redwings. This nest was woven together in the top of a clump of flags, and its weight had lowered it to within a few inches of the water. Its greater size than the near by redwings' nests attracted my attention, and I went to it. The nest contained two young, and two eggs on the point of hatching, and both grackles were there.

64. *Carpodacus purpureus*. PURPLE FINCH.—Common in 1902, but not so many were seen in 1903. Only one nest was seen in the two years. This was placed near the extreme top of a very tall balsam, and was found by Mr. Smith's seeing the female fly directly to the spot. We then saw that she was building, and we watched her at work for some time. This was on the 22d of May. On May 30, after a hard climb, Mr. Smith reached the nest, but it contained but one egg.

65. *Loxia curvirostra minor*. AMERICAN CROSSBILL.—May 29, 1903, while on a pine covered ridge on the Indian Reservation, near Kabakona Bay, a new note attracted our attention to the top of a tall Norway pine. Looking it up we found a party of three or four Crossbills industriously at work amongst the cones at the ends of the branches. We watched them for quite a while, they apparently giving us no thought. They were still in this tree when we left them.

66. *Astragalinus tristis*. AMERICAN GOLDFINCH.—Common in all places suited to the bird.

67. *Spinus pinus*. PINE SISKIN.—I found this bird not uncommon, in parties of from 6 to 30, in the tamarack swamps in 1902. In 1903 we did not see any. I have no doubt they bred there in 1902, as on the 8th and 9th of June I saw several groups feeding near the ends of branches of balsam trees. The whole flock seemed to keep up a twittering sort of a conversation, and at times one would break into a low, rather sweet song.

68. *Poæcetes gramineus*. VESPER SPARROW.—In 1902 they seemed to be rather scarce. That year I saw but one nest; this was on June 3, and it contained three young. In 1903, we found them to be common around Walker in the bare or cleared places, along the railroads or wagon roads. This year we saw six nests, five containing four eggs each, and one four young.

69. *Zonotrichia albicollis*. WHITE-THROATED SPARROW.—Abundant in the partially cleared country about Walker, and often heard in the wilder forest regions.

We saw many nests containing from three to six eggs. May 31, 1903, I found one nest containing four newly hatched young, but this seemed to be an unusually early pair. At that date most of the nests had incomplete sets or the eggs were fresh. The nests were all much alike, being sunken to the brim, and as a rule well hidden under brush or a rank growth of ferns, plants, etc. Several were placed just at the foot of small white pine shrubs and in such cases were completely concealed. There were exceptional cases where the nest could be looked into without disturbing any of the surroundings. One nest in particular, along a path, was in plain sight with no concealment, but the owners had deserted it before laying. There were other nests that were hard to find even after flushing the bird. One I saw in 1902 was well under a dead tree top and I did not find it until I had removed some of the brush. The bird does not flush directly from the nest like the Vesper and Song Sparrows, but runs off like a mouse.

70. *Spizella socialis*. CHIPPING SPARROW.—Common about the settlements, and along the railroads and wagon roads. Found with, but not nearly so numerous as the next. Many nests found, usually placed in small pine shrubs.

71. *Spizella pallida*. CLAY-COLORED SPARROW.—A plentiful bird in the brush land around Walker and along the railroads. It is a pretty little sparrow, with a confiding manner, but an unpleasant song. They were constant singers, too, while we were there, and it is one of the few bird songs I have found disagreeable. It is a buzzing, rasping noise, a little like the song of the cicada, but not so musical, and given with much vigor. A friend who was with me part of the time in 1902, would call the bird nothing but the "rasper," and I thought the name very appropriate.

They inhabit much the same kind of a country as does *S. pusilla* further south, and they nest in much the same manner. As a rule the

nests were placed within a few inches of the ground, and if a scrub white pine bush was handy it would invariably be used. I have seen no nest over three feet above the ground, and several were resting upon the ground in a clump of wintergreen or other rank growth. The nest resembles that of *S. socialis* in general style, but has less of the hair lining so characteristic of that bird. As a rule *S. pallida* uses a very fine, light-colored wire grass for this purpose. The number of eggs was usually four, sometimes only three, and only once did I see a nest containing five.

72. *Melospiza cinerea melodia*. SONG SPARROW.—The most abundant songster of that country. Found everywhere, but in greatest numbers in and near the settlements. Common also on the marshes with *M. georgiana* and on the dry hillsides and in the 'burns' with *S. pallida* and *Z. albicollis*. Every cabin or shack had its pair near by, and they were always within sight and hearing along the railroads.

73. *Melospiza lincolni*. LINCOLN'S SPARROW.—This bird was first seen on the marsh at Minnesota Point May 24, 1903. I heard it from the boat as we approached land and noticed that the song was something I had never heard before. The bird would allow quite a near approach, and was in full song from the top of one of the small birch shrubs scattered over the marsh. We spent an hour or so in the immediate vicinity trying to flush his mate but without success. The bird was there when we left, but upon another visit to the same place, May 31, he could not be found. May 27, 1903, we found another in song in a similar locality; this one also seemed attached to the place but was not seen there on May 31.

74. *Melospiza georgiana*. SWAMP SPARROW.—Abundant on all the marshes. A vigorous singer, but the song is lacking in sweetness and is rather monotonous. Many nests were seen in the tussocks, usually containing four or five eggs.

75. *Passer domesticus*. HOUSE SPARROW.—Common about the streets of Walker.

76. *Pipilo erythrophthalmus*. TOWHEE.—Fairly common on the cut-over hills back of Walker. Several nests seen in 1903 contained each three or four young or eggs.

77. *Zamelodia ludoviciana*. ROSE-BREADED GROSEBEAK.—June 5, 1902, I heard one but saw none. In 1903 we found them fairly common.

78. *Cyanospiza cyanea*. INDIGO BUNTING.—Only one seen in the two visits.

79. *Piranga erythromelas*. SCARLET TANAGER.—Seen and heard frequently both years.

80. *Progne subis*. PURPLE MARTIN.—Common about the settlements and along the lake shores. At a distance from human habitations, they were using cavities in stubs for nesting places. One oak stub in particular was in demand on Minnesota Point. It was standing by itself on the lake shore, at a distance from other trees, and a pair of martins and a flicker were battling for possession of a cavity, with a pair of Tree Swallows flying around in a wistful manner.

81. *Tachycineta bicolor*. TREE SWALLOW.—Seen about the ponds and smaller lakes near Walker and along the shores of Leech Lake. In 1903 we saw three cavities in use as nesting places. They were in stubs standing at the edge of the water.

82. *Riparia riparia*. BANK SWALLOW.—An abundant bird about Leech Lake.

83. *Ampelis cedrorum*. CEDAR WAXWING.—A plentiful bird, but much more numerous in 1902 than in 1903.

84. *Vireo olivaceus*. RED-EYED VIREO.—Abundant throughout that region. It seems to be as numerous about Leech Lake as it is in Iowa and Missouri, and certainly is one of the best distributed birds of the Mississippi Valley.

85. *Vireo gilvus*. WARBLING VIREO.—But one was seen near Walker. This was May 27, 1902, when one appeared in song. Thirty or forty miles southwest of Walker. I found them to be a common bird May 29, 1902, and several were seen near Brainerd sixty miles south of Walker by Mr. Smith May 21, 1903. In both localities the country is well cultivated.

86. *Vireo solitarius*. BLUE-HEADED VIREO.—Several seen May 23, 1903, but could not find them later. Both sexes were represented.

87. *Mniotilta varia*. BLACK AND WHITE WARBLER.—Common in 1902, and one of the most abundant of all warblers in 1903.

88. *Helminthophila chrysoptera*. GOLDEN-WINGED WARBLER.—May 22, 1903, I found one—a male in song—in a small swamp along the railroad near Walker.

89. *Helminthophila rubricapilla*. NASHVILLE WARBLER.—We found this species to be quite common. June 17, 1903, Mr. Smith flushed a female from a nest containing five incubated eggs. The locality was a small swamp along a brook near Walker, and the nest was sunken into a hummock of moss near the foot of a balsam. A clump of *Dalibarda*, growing just in front of the nest, completely hid the eggs from view with its big leaves.

90. *Compothlypis americana usneæ*. NORTHERN PARULA WARBLER.—Found in every swamp where there were balsam and tamarack.

91. *Dendroica tigrina*.—CAPE MAY WARBLER.—But one seen. This was on May 25, 1903, near Long Lake, southwest of Walker. It was with a group of other warblers of which there was a great flight that morning.

93. *Dendroica æstiva*. YELLOW WARBLER.—One of the most numerous of all the birds, keeping to the partially cleared hills and 'burns,' with their thickets of hazel and alder. Many nests were seen.

94. *Dendroica cærulescens*. BLACK-THROATED BLUE WARBLER.—First found May 22, 1903, and at a later date it was in the same place. This was a male in song, and from his staying in the vicinity we supposed there was a nest near, but we did not see it or the mate.

95. *Dendroica maculosa*. MAGNOLIA WARBLER.—One seen May 28, 1902, and several seen during our stay in 1903. During 1903 one male in particular attracted our attention by his great beauty and sprightly song

and movements. We saw him several times at the edge of a woodland along a brook near Walker. The last day we were there, June 7, he was still in the same place, and I have no doubt had a mate and nest in the vicinity.

96. *Dendroica pensylvanica*. CHESTNUT-SIDED WARBLER.—Perhaps the most abundant member of the family. Found in all the alder and hazel thickets, and around the clearings and in the 'burns.' Very tame and pretty. Many nests seen contained from three to five eggs.

97. *Dendroica striata*. BLACK-POLL WARBLER.—Scarce in 1902, but fairly common in 1903 throughout our stay. I have no doubt it breeds there, although we saw no nests.

98. *Dendroica dominica albilora*. SYCAMORE WARBLER.—This bird was first seen May 26, 1903. Its song attracted us to the locality, and we spent perhaps two hours watching him. During this time he moved around slowly from one perch to another, constantly singing, often coming down on the lower branches above us, where we could see him quite well. The beautiful yellow throat, the triangular spot of black on the side of the head and the white spot on the eyelid could plainly be seen. This bird visited not over half a dozen trees while we were there, spending most of his time in an oak and a large white pine. June 1 we went back to the same locality and found him there again, and he spent his time in exactly the same trees. Once Mr. Smith saw him chase a bird, perhaps his mate, off into the undergrowth, soon returning. We saw no nest, but there must have been one at no great distance—we thought in the white pine.

99. *Dendroica vigorsii*. PINE WARBLER.—One of the common Warblers around Leech Lake. In spite of this bird's abundance but one nest was seen in the two years. This was placed in the tuft at the end of a branch of a Norway pine and could not be seen from the ground even after we knew where it was. If all were hidden like this it is not surprising we saw no more.

100. *Seiurus aurocapillus*. OVEN-BIRD.—Seemingly as numerous on the birch and poplar clad hillside about Leech Lake, as under the white oaks and maples of Southern Iowa. Several beautiful nests were seen, containing from three to five eggs each.

101. *Geothlypis philadelphia*. MOURNING WARBLER.—A common bird about Walker. I had understood this species confined itself to wet woodlands, as does the Kentucky Warbler of the South, but such is not the case about Leech Lake. They were on the dry hillsides, about the burns and clearings, and about the alder and hazel thickets. They inhabited the same territory as *Zonotrichia albicollis*, *Wilsonia canadensis*, *Hylocichla fuscescens*, *Dendroica aestiva* and *Dendroica pensylvanica*. Occasionally we saw them along old logging roads crossing the swamps, but the greatest numbers were on the higher ground, seemingly preferring brush to timber.

I saw several nests both years and they are all much alike in construc-

tion and situation. They are placed like the Kentucky's, on the ground, at the foot of a clump of rank growth, such as wintergreen, wild strawberry, wild currant, grass, etc., sometimes resting in the growth so that it raises the nest a little from the ground as it grows. The nest is often in plain view from one or more directions, its concealment depending more upon its color and the leaves growing around it than upon any particular care of the birds. The number of eggs laid seems to be four, as I saw only one nest containing five.

102. *Geothlypis trichas occidentalis*. WESTERN YELLOW-THROAT.—Very common in suitable places. The bird around Leech Lake may be the newly recognized northern form *G. t. brachidactyla*, but we did not take any of the birds.

103. *Wilsonia canadensis*. CANADIAN WARBLER.—Quite common on the partially cleared hillsides near Walker, and along the railroads. They inhabit much the same country as the Mourning Warbler around Leech Lake, but are more frequently found at the foot of the hills, along the brooks, and at the edge of the damp places.

In 1902 I saw only two nests, but in 1903 I saw several. One nest seen in 1902 was placed in a clump of long dead grass, and almost on the ground after the manner of a Yellow-throat. This nest was in the middle of an old road on the top of a low hill in brush land and was very different in construction from those seen this year. It was composed entirely of long dry grass, without any dead leaves, while those seen in 1903 were built principally of large dead leaves. The other nests varied considerably in situation, the most of them being several inches above the ground in low growth—one at least ten inches up. One nest seen in 1903 was placed on the ground at the side of a stock path in a dense growth of wild currants and was the only one completely hidden. The number of eggs laid was usually four and in only one case did I see five.

104. *Setophaga ruticilla*. AMERICAN REDSTART.—Very common. Several nests seen.

105. *Galeoscoptes carolinensis*. CATBIRD.—Fairly common along the wooded lake shores and in the thickets around Walker. Several occupied nests were seen containing from three to five eggs.

106. *Toxostoma rufum*. BROWN THRASHER.—Not uncommon about the thickets and clearings around Walker in 1903. In 1902 they were scarce. Several nests seen, and *all* of them were sunken in the ground after the manner of a Towhee's. In Iowa I have seen the nest thus placed, but it is very unusual, and it is strange that the Leech Lake bird should prefer such a situation, though there must be a reason.

107. *Troglodytes aëdon aztecus*. WESTERN HOUSE WREN.—Common alike about the settlements and in the woodlands along the lake shores. Several occupied nests seen.

108. *Cistothorus stellaris*. SHORT-BILLED MARSH WREN.—Quite a colony on the marsh around Kabakona Bay in 1902, but this was burned over during the winter and this season (1903) we found but one male

singing in the whole place. This year we found a small colony along the Shinobie River, May 27. Several nests were seen, but only two were occupied. One contained four and the other six delicate white eggs.

Like *T. palustris*, the males are great singers at their summer homes, but the song is less pleasing. In the rank grass and sedge the bird would be singing almost at one's knees and yet out of sight. Occasionally one would mount to a higher perch to sing, after the manner of the Grass-hopper Sparrow.

109. *Telmatodytes palustris*. LONG-BILLED MARSH WREN.—Scattered in single pairs amongst the cane beds about Minnesota Island. Several nests seen but only one containing eggs. This was on the 2d of June, 1902, and there were six fresh eggs in the nest. A great singer with a sweet voice.

110. *Certhia familiaris americanus*. BROWN CREEPER.—One seen and heard in song, May 25, 1903, at the edge of a small lake along the Great Northern Railroad two miles west of Walker.

111. *Sitta carolinensis*. WHITE-BREASTED NUTHATCH.—Several were seen both years, but it cannot be called a common bird about Leech Lake.

I was rather disappointed in not finding *S. canadensis*, as I expected to meet with it.

112. *Parus atricapillus*. CHICKADEE.—Frequently seen and heard but not abundant.

113. *Hylocichla fuscescens*. WILSON'S THRUSH.—The abundant thrush of the region.

We saw a great many nests containing three or four eggs, and one containing five. The nests were placed on the ground, in a clump of black alder near the ground where sprouts had shot out from a stump, on top of low stumps, or four feet up in shrubbery. When the nests were on the ground they were fairly well hidden, but several we saw were placed on top of stumps in plain view, and at the side of paths. Many of the eggs had small dots of brown scattered over them, and several were freely freckled.

114. *Hylocichla aliciae*. GRAY-CHEEKED THRUSH.—Very abundant in 1902, from May 26 to 29. None seen after the first of June and none at all in 1903. While they were passing through in 1902 the low, pleasant song reached one from dozens of places on all sides.

115. *Hylocichla guttata pallasii*. HERMIT THRUSH.—Rather rare about Walker and more retiring than the Veery. It seemed to prefer the wilder forests and was very shy. We saw several nests containing three or four eggs each. The nests were on the ground, or a few inches from it, and were exactly like those of *H. fuscescens*. The eggs also looked alike, those of this species being slightly larger and a shade lighter in color.

116. *Merula migratoria*. AMERICAN ROBIN.—Common about the settlements and in clearings. Several occupied nests seen about Walker.

117. *Sialia sialis*. BLUEBIRD.—Several pairs seen about Walker. They were nesting in dead stubs about the clearings.